



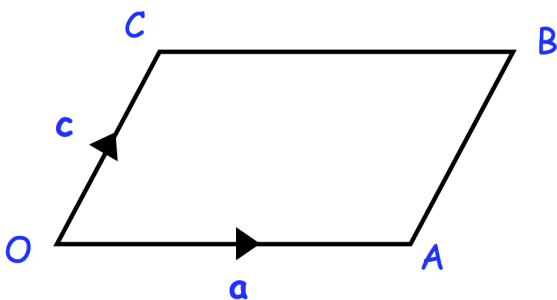
Solve

$$\frac{3}{x^2} + \frac{2}{x} - 1 = 0$$

The population of a country is  $6.4 \times 10^6$   
to the nearest hundred thousand

The area of country is  $8.4 \times 10^4 \text{ km}^2$   
to the nearest  $100 \text{ km}^2$

Calculate the lower bound of the  
population density.



OABC is a parallelogram

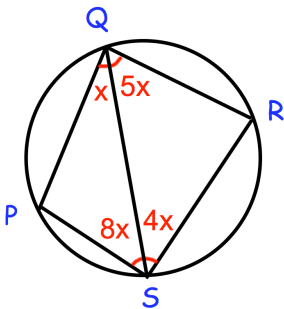
$$\vec{OA} = \mathbf{a} \quad \vec{OC} = \mathbf{c}$$

Y is the midpoint of AC  
OAD is a straight line where  
 $OA:AD = m : 1$

Given that

$$\vec{YD} = 5\mathbf{a} - \frac{1}{2}\mathbf{c}$$

Find the value of m



Prove QS is a diameter.